SAMPLING PLAN

33777 Valley Center Road
in
Valley Center, California

CLIENT: Marvin Donius
33777 Valley Center Road
Valley Center, CA 92028

PREPARED BY: *Marc Boogay*
Consulting Engineer
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DATE: March 25, 2008

PROJECT NUMBER: 08-0311

IMPORTANT NOTICE: This report is confidential. It may not be read or relied upon, except by the Client and U.S. EPA.

ABSTRACT

The property identified by the address 33777 Valley Center Road in Valley Center, California (the "site") had been in use as a mushroom farm, as well as being occupied by several other tenants that included a citrus packer and a tow yard. In October of 2007, fire destroyed all onsite buildings as well as most else located onsite including several cars in the paved tow yard, several trucks parked in an unpaved lot, several aboveground tanks (one containing diesel fuel), and an area used as a secondary containment for waste oil drums. Remaining building materials and destroyed vehicles are currently being demolished and removed from the subject site.

This sampling plan will address the possibility of impact to underlying soil and groundwater from possible releases of diesel fuel from a burst aboveground diesel fuel tank, possible release from a secondary containment area used for waste oil, possible release that may have occurred beneath burning vehicles, water quality in an onsite groundwater production well, and layout of onsite wastewater disposal systems.

This plan provides for near-surface soil sampling in several areas, composite samples of burn ash, sampling of groundwater produced by the onsite well, and identification of areas used by the onsite wastewater treatment system.

SIGNATURE

This sampling plan was completed by me or under my direction.

Marc Boogay
California Registered Environmental Assessor No. 478

March 25, 2008

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1.0 AUTHORIZATION

This Sampling Plan is prepared in accordance with a contract between Marvin Donius (the "Client") and *Marc Boogay Consulting Engineer (MBCE)*, dated on March 20, 2008. Work concerned the property identified by the address 33777 Valley Center Road in Valley Center, California (the "site"), located on the Rincon Indian Reservation.

2.0 OBJECTIVE AND APPROACH

The subject site comprises an approximately 3-acre area, comprised of both paved and unpaved areas. It had previously included several buildings used for the cultivation of mushrooms, as well as several above-ground tanks, a paved parking lot in use by a towing company, an unpaved area used for parking trucks and RVs, as well as additional areas. All structures were destroyed by fire; most are now demolished, and most burned remains await removal.

The objective of this sampling plan is to guide progress toward environmental site assessment of the subject site, especially as regards fire-related release. It includes description of sampling and analyses for shallow soil beneath areas of (suspected) released petroleum hydrocarbons, sampling and analysis of burn ash, assessment of water quality from an onsite production well, and assessment of location and extent of onsite wastewater system(s), i.e., septic tank(s) and percolation field(s).

3.0 BACKGROUND

For purposes of this report, directions along Valley Center Road will be cited as "north" and "south," with perpendicular directions referred to as "east" and "west." The subject site was on the east side of Valley Center Road, in an area by reservation land, including the *Harrah's Rincon Casino and Resort*, as well as private residential land.

Several tenants occupied the subject site prior to the October 2007 fire; these included *Mushroom Express, Automotive Specialists* (a towing company), a citrus packer, a lawn care company, a security company using part of the site for parked trailers, and two residential apartments. At the time of the visit conducted in relation to this study, some tenants had recently begun to resume limited operations onsite, mostly parking/storage-related usages.

3.1 The Subject Site Prior to the October 2007 Fire

The site was the subject of a 2007 Phase I [1], in which the exterior site was described as follows:

> The buildings were located near the center of the subject site lot, which was paved mostly in asphaltic concrete (AC). A driveway from Valley Center Drive ran near the west center side of the subject site lot. A chain-link fence surrounded the subject site on

[1] "Phase I Environmental Site Assessment 33777 Valley Center Road in Valley Center, California, Marc Boogay Consulting Engineer, August 16, 2007.

all sides. Immediately west of the buildings, just off of Valley Center Drive, was a vacant area that appeared to be used for general parking. Cover plates at grade were noted near the northwest corner of the southern building; these were said to be access-ways to one or more septic tanks.

At the southwest corner of the subject site was a trailer in use as an office for Automotive Specialists, a tenant of the subject site. The southeast corner of the subject site was separately fenced and said to be subleased to a tow yard for Automotive Specialists. This lot was paved in Portland cement concrete (PCC) and was occupied by parked cars, many of which were collision-damaged. Near the west end of this yard was a fenced dog enclosure and an unlabeled drum. Along the south wall of the southern building, immediately north of the vehicle yard, were several large piles of flattened cardboard boxes.

The area between the two concrete buildings was paved in PCC and appeared to be in use for miscellaneous storage. Stacks of boxes and crates were located along the sides of both buildings, a forklift, and several unused air conditioning units, an unused water softener tank, and two larger tanks were here. One of these tanks was 1000-gallon in size and was said to have been an onsite, in-ground gasoline tank; another was described an unused diesel fuel tank. A grade-mounted transformer was at the west end of this area.

The area immediately north of the buildings was also paved in PCC, and then sloped downhill. Here were stacks of pallets, piles of metal parts and scrap, and miscellaneous storage.

Downhill from this paved area, the remaining northern portion of the subject site was unpaved. This area was mostly covered with parked trucks, most of them owned by Mushroom Express. Several trailers were parked near the northwest corner of this lot. Two large autoclaves were near the north center portion of the subject site, as were piping, metal sheeting and scrap, lumber piles, tires, sheet-metal, and unused storage containers.

At the northeast corner of the subject site property was a separately fenced 1-acre lot. This was occupied by a lawn care company and consisted mostly of vacant, graded land. Piles of soil/gravel and a small bulldozer were also here.

Along the east side of the subject site, behind the buildings, was an unpaved area. A small wooden hut housed a water well and associated equipment. Additional crates, boxes, and packing materials were stored nearby. An aboveground tank was located along the east side of the subject site, in concrete block saddles. This held diesel fuel and was in use. Pavement beneath the tank appeared intact, and a small amount of stained soil was noted alongside the dispenser.

A shed was located immediately south of the aboveground tank; this was inaccessible. On the south side of the shed was a concrete block secondary enclosure holding drums of waste oil. A small water heater associated with a hand washing station adjoined this. Minor staining of PCC pavement near the secondary containment was noted.

On the east end of the southern concrete building was an overhead shade covering a large fruit-packing apparatus, consisting of conveyor belts, chutes, and a cleaning apparatus for fruit (a "dry brush bed"). No liquids or chemicals were observed in association with this operation. Ladders, boxes, and related materials were stored against the east side of the main building, below the packing apparatus.

Typical utilities were observed on or adjacent to the site. These included water, electricity and natural gas, and telephone. Overhead power lines were observed along the Valley Center Road.

The site's electricity/natural gas was provided by San Diego Gas & Electric and the water was provided to the site by the Valley Center Municipal Water District. The subject site was noted to have a septic tank and onsite wastewater disposal system, evidently for sink/toilet wastewater flows only.

3.2 The Subject Site Subsequent to the October 2007 Fire

Subsequent to the October 2007 fire, the subject site appeared unchanged except for vast fire damage. The center area, where building had been located, comprised piles of concrete and metal rubble and scrap. Some of this was sorted and arranged in organized piles; other areas appeared not to have been sorted.

The southeast corner of the subject site, which had been the location of the towing yard, was still paved, and a number of cars were observed here. Several cars had been completely destroyed by the fires and materials from these vehicles were noted on the pavement. Condition of the pavement appeared relatively intact; no very large cracks or areas where penetrations of automotive contaminants were likely to have seeped through asphalt materials were noted. At the northeast corner of this paved area was the area used as a secondary containment for drums of waste oil. This area had also been damaged by fire, and it appeared that all oily products here had been burnt away. Small, residual amounts of waste oil mixed with water, etc. were observed in drums here.

The aboveground diesel fuel storage tank along the east edge of the subject site was severely damaged. This had exploded in the fire and no fuel remained. An explosion caused by the fire appeared to have blown off the south end-plate of the tank (a horizontal cylinder) and to have moved the entire tank ca. 1.5-feet north of its original location in the concrete saddle. Pavement was noted beneath the associated dispenser; however, areas beneath the tank and within a few feet were unpaved.

The wooden hut/shed structure that had previously surrounded the existing onsite water well had been destroyed; however the main elements of the well and its associated piping appeared undamaged.

On the north side of the subject site, immediately north of the paved area that was the previous location of the onsite buildings, was an area where several large trucks had been parked. These were also seriously damaged in the fire, and the area had dark ash on the ground. The remains of the trucks and been removed, and the top layer of soil appeared to have been raked over. Small piles of ash and related remnants of the fire were observed in this general area and across the entire site.

4.0 PROPOSED SOIL SAMPLING PROCEDURES AND OBSERVATIONS

4.1 Contaminants of Concern

Soil in the area around the burst diesel fuel tank is suspected of having impact from diesel fuel.

Soil in the area of fire-damaged vehicles parked over an unpaved area is suspected of having impact by petroleum hydrocarbons in the diesel fuel and gasoline ranges and by heavier hydrocarbons, e.g., motor or hydraulic oils.

Soil in the area around the secondary containment area used for waste oil is suspected of having impact from waste oil, i.e., motor or hydraulic oils.

Burn-ash is suspected of containing elevated levels of metals, e.g., heavy metals including copper, zinc, chrome, etc.

Water is suspected of having impact by components of petroleum hydrocarbons, viz., fuels and lubricants. This sample is also to be analyzed for most typical inorganic analytes as listed in Table 64431-A of the California Safe Drinking Water Act & Related Laws and Regulations [2], as well as for the VOCs/SOCs listed in Table 64444-A of the same document.

4.2 Proposed Sampling Locations

Samples shall be taken from specific areas described above. These include:

1- Soil from the unpaved area alongside a secondary containment structure for waste oil (located along the east side of the subject site, near the northeast corner of the lot previously used by the towing company). Two sample locations will be selected for shallow (1-to-2-foot deep) samples here. Each will be from a random part of a selected grid element.

2- Soil from unpaved areas beneath and alongside the aboveground storage tank (used for diesel fuel), located near the center of the east side of the subject site. Four sample locations will be selected for shallow (1-to-2-foot deep) samples here. Each will be from a random part of a selected grid element.

3- Soil from the unpaved area immediately north of the paved center of the subject site and the previously existing buildings, where several vehicles were destroyed by fire and where ash and darkened soil was observed. Four locations will be selected for shallow (1-to-2-foot deep) samples here. Each will be from a random part of a selected grid element.

4- Water from the onsite water production well will be sampled.

5- Two composite samples will be taken of burn-ash. One will be taken from several locations on the west side of the subject site, and another will be similarly taken from the east side.

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[2] California Regulations Related to Drinking Water, from Title 22 California Code of Regulations, California Safe Drinking Water Act & Related Laws and Regulations:" last updated October 11, 2007.

4.3 Sampling Equipment and Procedures

Field Equipment

Soil sampling will be performed by use of a hand-held, powered soil-drill with a 3-inch diameter auger until the target depth is reached. A slide-hammer driven sampler with a removable stainless steel liner will be used to acquire the samples, which will then be closed by polyethylene caps. Alternatively, if necessary, glass jars (ca. 200-ml) will be used to catch cuttings directly from the auger.

Burn-ash will be sampled by grabbing material directly from paved or unpaved surfaces. Only glass jars (ca. 200-ml) will be necessary for this work.

Water sampling will be done directly from the onsite well, following wiring repairs, using a portable power supply and glass bottles and vials provided by the laboratory.

Field Methods and QC/QA

The soil sampling will involve drilling to target depths by use of a hand-held, powered soil-drill. A slide-hammer will be used to drive a soil sampling device with a removable stainless steel liner to acquire the samples. Polyethylene caps will be placed on the sample liner, which will then serve as the sample container. In the event soils are too sandy or otherwise too non-cohesive for this method, glass jars (ca. 200-ml) will be used to catch cuttings directly from the auger.

The burn-ash sampling will be performed by scooping burn-ash residues from paved and unpaved surfaces using a clean sheet of new paper. Samples will be placed in glass jars (ca. 200-ml). Two composite samples will be taken, each from at least three separate areas. One will be made up of material taken from the east side of the site, and another from material taken from the west side.

Sampling of the onsite groundwater well shall be by directly holding an open sampling vessel (typically 1-liter brown glass bottles and 40-ml vials) beneath an open valve or spigot. The well will be run for at least 5-minutes prior to sampling to ensure purging of water in the well and that the sample is representative of water in the soil formation. One water specimen will be taken.

Grids will be arranged for the soil sampling area beneath the area of parked cars, the area of secondary containment of waste oil, and the area around the burst diesel fuel tank. Each grid will involve arrays of lines marked by chalk or stakes, with 5-foot spacing of lines parallel and perpendicular to Valley Center Drive.

All efforts will be made to limit release of volatile chemicals from the samples by filling the sample container with minimal headspace and by sealing the samples quickly and tightly, using plastic caps. Groundwater samples will be taken by use of 40-mL vials. Again all efforts will be made to limit release of volatile chemicals from the samples by filling the sample container with minimal headspace and by sealing the samples quickly and tightly, using plastic caps. The composite sample will be taken in a large (1-gallon) polyethylene bag with zippered closure. Ash will be massaged into homogeneity and a composite sample transferred to a 4-oz. glass jar.

The scope of environmental risk at the site is not deemed to warrant additional expense for duplicate samples and field blanks.

Sample Labeling/Documentation

Samples will be immediately identified on labels to be on the sample container and further secured by placement into polyethylene bags with zip-locking closures.

Logbook Maintenance

A logbook will be kept at the site, and entries will include time, location, and observations of all material events during the course of the field work.

Containers/preservatives, etc.

Soil containers will be the sampling tube closed with polyethylene caps or, alternately, will be 200-ml glass jars. Groundwater samples will be in brown 1-liter glass bottles and in 40-ml glass vials with sample-drawing septa. All samples will be individually labeled and put into individual protective polyethylene bags with zip-locked closure; following this, each will be immediately placed within an insulated and iced cooler. Samples will be delivered by *Golden State Overnight* courier service without delay to *American Scientific*, an EPA-approved laboratory, for analysis.

4.4 Proposed Laboratory Analyses

Soil samples from the area with the burst diesel fuel tank will be analyzed for "total petroleum hydrocarbons" in the diesel fuel range using EPA Method 8015. Soil samples from the area where an unpaved area was beneath fire-damaged parked vehicles will be analyzed for "total petroleum hydrocarbons" in both gasoline and diesel fuel ranges using EPA Method 8015. Soil in the area around the waste oil storage containment would be analyzed for "total recoverable petroleum hydrocarbons" using EPA Method 418.1.

Burn-ash will be analyzed for metallic content using the sweep of TTLC-CCR Title 22 Metals (formerly the CAM 17 metals sweep), including the elements, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, Ti, V, and Zn).

Groundwater will be analyzed for impact by for petroleum hydrocarbons in fuel using the examinations, "total petroleum hydrocarbons" EPA Method 8015 (to include both diesel fuel and gasoline ranges), "total recoverable petroleum hydrocarbons" EPA Method 418.1 (to include hydraulic and lubricating oils), "BETX", for benzene, toluene, ethylbenzene, xylene, oxygenates, and other gasoline constituents/solvents EPA Method 8260. This sample is also to be analyzed for most typical inorganic analytes as listed in Table 64431-A of the California Safe Drinking Water Act & Related Laws and Regulations [3], as well as for the VOCs/SOCs listed in Table 64444-A of the same document.

4.5 On-site Wastewater Disposal System Assessment

A local contractor with experience in septic system forensics will be retained to map out the percolation systems including septic tanks, "tight" lines, and percolation lines. These will be flagged in the field, and rough surveyed so that they can be drawn onto a site plan.

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[3] California Regulations Related to Drinking Water, from Title 22 California Code of Regulations, California Safe Drinking Water Act & Related Laws and Regulations:" last updated October 11, 2007.

APPENDIX I MAP OF SUBJECT SITE (HIGHLIGHTING AREAS OF INTEREST)

Photo Source: Google Earth 2007 Edition
(from photograph prior to 2007 fire)

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APPENDIX II SUBJECT SITE PHOTOGRAPHS

Overview of center of subject site, (previous location of onsite buildings).

Another view of remaining structural elements near entrance to subject site, including covers reported as for a septic system.

APPENDIX II SITE PHOTOGRAPHS, continued

Piles of sorted rubble near center of subject site.

Unsorted materials present onsite.

APPENDIX II SITE PHOTOGRAPHS, continued

Northeast corner of paved area previously used by tow yard, including burnt truck and concrete block secondary waste oil enclosure.

Drums concrete block secondary containment, (some residual waste oil/water-sludge remaining in drums).

APPENDIX II SITE PHOTOGRAPHS, continued

Paved and unpaved surfaces near fire-damaged secondary enclosure.

Aboveground diesel tank and dispenser, (far end burst in 2007 fire).

APPENDIX II SITE PHOTOGRAPHS, continued

South end of diesel tank, burst off in fire, ash and debris in partially paved area.

North end of diesel-fuel tank, associated piping which bent and displaced from bursting of far end (not shown).

APPENDIX II SITE PHOTOGRAPHS, continued

Dispenser and pump near north end of tank.

Rubble and debris surrounding exterior remains of onsite groundwater well.

APPENDIX II SITE PHOTOGRAPHS, continued

Exterior casing and fixtures of groundwater well.

Area on north end of site, where vehicles burned over unpaved area.

APPENDIX II SITE PHOTOGRAPHS, continued

Darkened soil and ash where debris from unpaved area where vehicles burned.